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**Relocating attributional phenomena
within a language-cognition interface:
The case of actors' and observers'
perspectives**

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Abstract

Two studies are reported which apply a language based model to the actor-observer domain in attribution theory. This model distinguishes between four classes of interpersonal terms (descriptive action verbs, interpretive action verbs, state verbs, and adjectives) that have been shown to mediate different cognitive inferences. An adaptation of this language based model suggests that actor-observer differences can be understood as differential language conventions used by actors and observers. This hypothesis finds support in the first study where subjects were asked to give free descriptions to a number of social events. A second study examined the more specific implications of this general case by replicating an experiment reported by Nisbett et al. (1973). The same language based conventions are shown to be used by actors and observers in this more specific case. The implications of these findings are drawn out with special reference to the influence of culture on cognitive processes.

The contribution of language and linguistic conventions to social cognition is an area that is commanding growing interest (cf. Brown and Fish, 1983; Semin and Greenslade, 1985; Au, 1986; McGuire, McGuire, and Cheever, 1986; Fiedler and Semin, 1988; Semin and Fiedler, 1988; *inter alia*). One of the main issues has been the causality implicit in interpersonal verbs (e.g., help, deceive, like, respect, etc.) and their

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relation to attribution theory (e.g., Brown and Fish, 1983; Au, 1986; Fiedler and Semin, 1988). This type of approach was emphasized already by Heider (1958) as a fundamental tenet in his analysis of the psychology of interpersonal relations (p. 9 ff).

Indeed, much of the work on attribution theory, interpersonal interaction, and impression formation relies on the use of interpersonal terms (i.e. verbs or adjectives). As succinct descriptions of interpersonal events or properties of persons, such terms have been extremely useful in laboratory studies investigating, for example, causal attributions of interpersonal events (cf. Abelson and Kanouse, 1966; McArthur, 1972; Ruble, 1973; Cunningham and Kelley, 1975; Orvis, Cunningham and Kelley, 1975; Cunningham, Starr, and Kanouse, 1979; DiVitto and McArthur, 1978). The purpose of the two studies reported here is to apply a model developed with reference to the linguistic implications of interpersonal terms (Semin and Fiedler, 1988) to the issue of actors' and observers' differential attributions (cf. Jones and Nisbett, 1972; Monson and Snyder, 1977; Kelley and Michela, 1980; Watson, 1982; *inter alia*). A recent study by McGuire and McGuire (1986) suggests that there are distinct differences in the use verb types (action vs state verbs) in natural descriptions of self and others.

The comparison between actors' and observers' attributions has been one of the focal issues in attribution theory since Jones and Nisbett's (1972) seminal paper on the subject. They argued that 'there is a pervasive tendency for actors to attribute their actions to situational requirements, whereas observers tend to attribute the same actions to stable personal dispositions' (p. 80). A number of facets which may contribute to these differences have been examined, with cognitive and motivational factors being the two major categories likely to contribute to these differences (see Kelley and Michela, 1980; Watson, 1982). It is interesting in this context that language and the types of linguistic devices available to actors and observers have not commanded much attention. The framework for the two studies reported here is supplied by the application of a model of linguistic categories used in the interpersonal domain (Semin and Fiedler, 1988).

In order to develop the rationale for the two studies we shall begin by summarizing this taxonomic framework and its cognitive implications. The linguistic categories in the interpersonal domain are *verbs* that we use to express behaviours or relations between individuals with reference to overt actions (e.g., talk, help), accomplishments (e.g., defeat, achieve), cognitive-emotional states and changes therein (e.g., like, recognize, realize), and *adjectives* or traits, namely properties of persons (e.g., friendly, hostile, extraverted). Semin and Fiedler (1988) have advanced a general framework within which they distinguish between four linguistic categories in the interpersonal domain, namely *descriptive action verbs* (DAV), *interpretive action verbs* (IAV), *state verbs* (SV), and *adjectives* (ADJ). This taxonomy is obtained by the use of converging linguistic criteria (see Table 1) that allow a classification of these terms independent of their psychological implications (cf. Semin and Fiedler, 1988 for detail). They show that this four-level classification is located on a dimension of concreteness – abstractness. As one moves from DAV to IAV to SV to ADJ in this classification the use of language is gradually detached from the situational context and the specific empirical events to which the propositions refer. Thus 'S hits O' (DAV) refers to a specific event and requires the situational context for specific interpretations such as an act of aggression, distraction, or greeting. 'S helps O' (IAV) readily abstracts from an immediate correspondence between the verb and the observed action in DAVs providing an 'interpretive frame' for diverse activities all of which may be regarded as

Table 1. Fourfold classification of linguistic terms in the interpersonal domain and their classification criteria.

Level	Category	Examples	Characteristic Features
	Descriptive Action	call meet	Reference to single behavioural event reference to specific object and situation; context essential for sentence comprehension; objective description of observable events.
	Verbs (DAV)	see visit	
<i>Classification Criteria:</i>			Refer to one particular activity and to a physically invariant feature of the action; action has clear beginning and end; in general do not have positive or negative connotations
	Interpretive Action	cheat imitate	Reference to single behavioural event; reference to specific object and situation; autonomous sentence comprehension; interpretation beyond n
	Verbs (IAV)	help inhibit	mere description.
<i>Classification Criteria:</i>			Refer to general class of behaviours; have a defined action with a beginning and end; have positive or negative semantic connotations
	State Verbs (SV)	admire hate like abhor	Enduring states, abstracted from single events; reference to social object, but not situation; no context reference preserved; interpretation beyond mere description.
<i>Classification Criteria:</i>			Refer to mental or emotional states; no clear definition of beginning and end; do not readily take the progressive form; not freely used in imperatives
	Adjectives (ADJ)	honest impulsive reliable helpful	Highly abstract person disposition; no object reference or situation reference; no context reference; highly interpretive, detached from specific behaviours.

'helping' while still retaining a reference to concrete events. 'S likes O' denotes a temporally more enduring state that no longer corresponds to an identifiable act, referring to a psychological state in the subject. Finally, 'S is hostile' (ADJ) represents the highest degree of abstraction (i.e., abstracting over time and situations and even over object persons). Semin and Fiedler (1988) were able to show that with the increasing abstractness of the linguistic category in question the validity of a sentence becomes more independent from its relation to an empirical event and thus progressively determined by its relation to other abstract terms (see also Semin and Greenslade, 1985).

Two cognitive consequences of this taxonomy are particularly relevant for the present studies. The first is the *dispositionality* implied by different categories. The second is related to the question of *causal origin* in sentences where these linguistic categories occur. In two independent studies, Semin and Fiedler (1988) show that dispositionality (enduringness of a quality ascribed to a person) and how much a sentence reveals about a person varies systematically as a function of linguistic category. The least revealing sentences about a person are those constructed with DAVs. Equally, DAV-sentences express the least enduring qualities about a person. ADJ at the opposite end are the most informative about the subject and express the

most enduring qualities. IAV and SV sentences occupy the expected intermediate positions. Thus, an index of *degree* of dispositionality is the type of linguistic category that is used in a sentence: the more abstract a term the more enduring and revealing it is about a person.

If one can identify degree of dispositionality, then one is still left with the task of objectively determining the question of causal origin. In the case of DAV and ADJ the answer is relatively simple. This is because in the case of ADJ, sentences such as 'A is ADJ' already abstract from factors outside the subject and the ascription of an adjective implies unambiguously that the causal origin is in the subject. In the case of sentences with DAV (e.g., 'John is talking to Paul') we have a very specific reference that does not reveal any constant locus of causality outside of the subject.

The case with IAV and SV is not given in as clear-cut a manner. However, this issue has been extensively investigated by Abelson and Kanouse (1966), Caramazza *et al.* (1977), Fiedler (1978), McArthur (1972), Brown and Fish (1983) and more recently Fiedler and Semin (1988). All these studies address the issue of the causality implicit in verbs. The consistent finding across these studies is the following: When a sentence in the form of *Subject-Verb-Object* is presented and the subject's task consists of judging the locus of causality of the behaviour expressed in the verb, then sentences including IAV are regularly attributed to the subject whereas sentences including SV are attributed to the object. For instance, the sentence 'Bob helps Mike' implies that the cause of the behaviour in question is Bob's 'helpfulness' rather than Mike's 'helpworthiness'. However, the sentence 'Ted likes Paul' points to Paul's 'likability' rather than Ted's 'likingness' as the implicit cause of behaviour¹. Thus in the case of all four categories one can make systematic statements about causal origin depending on the linguistic category that is employed in sentences as well as degree of dispositionality.

What are the implications of such regularities? Given the same behavioural referent (e.g., Assume that a boy, S, is observed, who is behaving in much the same way as some adult, O), one can either use an action verb ('S is calling O' -DAV- 'S imitates O' -IAV-), to imply subject causation or an affective state verb ('S admires O') and thereby imply that some attribute of O is the origin of the behaviour. In a similar vein, the same observation can be commented on by either 'S rewards O' (action verb) or by 'S respects O' (state verb). Alternatively, one can use 'S auxiliary verb ADJ' or 'O auxiliary verb ADJ' sentences thereby emphasizing either S's autonomous act or O's accomplishment.

The question addressed in the two studies reported in this paper concerned the implications of this approach for a particular issue within attribution theory, namely actors' *versus* observers' attributions. The purpose of these studies was to examine whether specific cognitive-interpersonal phenomena can be recast within a theoretical framework that focuses on the cognitive implications of linguistic categories in the

1. A recent study by Au (1986) failed to obtain unequivocal support for the observed regularities in the case of some action verbs. She identified a number of action verbs which in SvO sentences are not attributed to the subject as is regularly documented in the earlier literature. Closer inspection of her materials reveals however that this does not appear to invalidate the present premise. Au's sample of action verbs would appear to be non-representative in several respects. The deviating verbs typically do not refer to overt actions but to speech acts (such as praise, punish, congratulate) and are typically used as metalinguistic devices to express attribution to the sentence object. These types of verbs will, of course, imply object causation.

interpersonal domain and the language conventions which guide the use of these categories.

STUDY 1

To test this, we first of all investigated free descriptions of social behaviour provided by actors and observers. To this end subjects were simply asked to recall and describe behaviour episodes associated with specific social events, rather than for any causes or reasons for a behaviour. Systematic differences between actors and observers with respect to their use of dispositional terms essentially means that observers will tend to use more abstract terms in their descriptions than actors. It was hypothesized that if this systematic difference in the use of interpersonal terms by actors and observers is a general phenomenon then it would manifest itself even when causal reasoning was not an experimental requirement. To this end, a ten cue-word task was used. Subjects had to describe a concrete instance of (either their own or another person's) behaviour that came to their mind in response to each of ten social events categories (e.g., a successful party, failure at school, clumsiness, etc.). The dependent variable consisted of the frequency of use of each linguistic category as a function of the perspective (actor versus observer). The prediction was essentially that the description of behaviours from an observer's perspective should display a higher proportion of abstract terms (particularly adjectives, since these are the most abstract and strongest dispositional terms) than from the actor's perspective.

Method

Participants and Design

32 students enrolled in an introductory lecture in psychology at the University of Giessen took part in this study on an unpaid voluntary basis. Nineteen were asked to recall and describe their own behaviour (Actor Condition); the remaining 13 had to provide descriptions of other people's behavior (Observer Condition).

Materials and Procedure

The investigation took place in a large lecture hall. Two versions (actor *versus* observer) of the same questionnaire were distributed among the students in a quasi-random fashion. All instructions, as well as the perspective manipulation were provided in the questionnaire. No time limit was set and no restrictions were set apart from the request to produce sentences rather than single keywords.

Participants were told that the study was concerned with recollections of earlier experiences. Instructions prepared the participants to expect ten concepts in the questionnaire. They were asked to remember one particular experience in response to each concept and to describe this experience (in one or no more than two sentences). They encouraged to report the first instance that came to their mind. The perspective manipulation appeared immediately after the general instructions. In the Actor Condition they were requested to provide descriptions in which the participant was the

agent or protagonist. In the Observer Condition, subjects were requested to give descriptions in which the agent or protagonist was some other person.

The stimulus situations were the following: A lively dispute; support; victorious game; successful party; great fear; failure at school, virtuesness; bodily harm; clumsiness; pleasant acquaintance. They were presented in a fixed order.

Results

Coding and Data Preparation

The instruction to describe one's own or another person's behaviour in sentence form was rarely violated. A negligible proportion of sentences in which the logical subject was neither the actor nor observer was excluded from the analysis. This resulted in the following coding procedure. Sentences were coded for (1) dispositionality (ADJ, SV, IAV, DAV, or no explicit predicate), and (2) for the inclusion of other sentence parts (i.e., whether references to some other object person, space, time, and modality of behaviour were included) that might point to external references. Intercoder agreement between two independent coders was 86%.

The ten stimulus words rather than the 32 subjects were treated as the unit of analysis. One reason was because some questionnaire were incomplete and the number of omitted descriptions differed between participants. Thus an analysis of the data with a within Subjects design would have been problematic. More importantly, however, an analysis per stimulus allows us to treat the different linguistic categories as a repeated measures factor. Finally, an analysis which treats stimulus words as a random factor meets the analytic emphasis that we want to place on generalization over stimulus contents.

Thus the results are based on the occurrence rates of the various coding categories computed as proportions (e.g., the number of ADJ classifications divided by the total number of sentences in response to the stimulus). The central results pertaining to the differential use of linguistic categories by actors and observers can be seen in Table 2.

A 2 (actor versus observer) \times 4 (ADJ, SV, IAV, DAV) repeated measures analysis of variance yielded three significant effects: a perspective main effect, $F(1,9) = 13.23$; $p < 0.01$, indicating, as expected, more responses entailing explicit predicates by observers than actors; a main effect for linguistic categories, $F(3,27) = 13.78$; $p < 0.001$, predominantly due to the prevailing use of IAV; and, most importantly, a perspective \times linguistic category interaction, $F(3,27) = 3.93$; $p < 0.01$, reflecting the above-mentioned differential use of language styles by actors and observers. That is, there is a greater tendency for observers to utilize more abstract predicates.

Table 2. Proportion of linguistic category usage as a function of perspective

Linguistic Category	Perspective		
	Actor	Observer	
DAV	0.12	0.08	$d = +0.04$
IAV	0.25	0.38	$d = -0.13$
SV	0.05	0.12	$d = -0.07$
ADJ	0.05	0.17	$d = -0.13$

Table 3. Occurrence rates for sentence parts other than sentence predicates

Sentence Part Type	Perspective	
	Actor	Observer
Object Person	0.45	0.39
Third Person	0.25	0.18
Time	0.08	0.03
Space	0.08	0.12
Modality	0.14	0.12

Table 3 shows the mean occurrence rates for the remaining sentence parts in Anchor and Observer Condition. If these coding categories (representing specific references to other persons, time, space, and modality) can be regarded as an index of contextualized language use, then the data clearly corroborate the conjecture that actors' language tends to maintain context references than observers' language. The perspective main effect in the 2 (Actor versus Observer) \times 5 (reference to object person, third person, time, space, modality) MANOVA with repeated measures on the second factor, is statistically significant, $F(1,9) = 6.88$; $p < 0.05$, as is the context category main effect, $F(4,36) = 12.26$; $p < 0.001$. However, the absence of an interaction between Perspective and Context Category, $F(4,36) = 2.02$; n.s., suggests that the difference between actors and observers is equally apparent for all context categories.

A further analysis provides a simple but pertinent test of the hypothesized complementary use of linguistic predicates and contextual supplements by actors and observers. Treating the distinction of predicates and supplements as a within subjects factor, it is possible to compute two overall proportions for each of the ten stimuli, one for the use of predicates (over all categories) and one for the use of contextual supplements. This analysis shows that explicit predicates are used by actors in 45% of the cases and by observers in 75%. In contrast, context supplements are used by actors and observers at a rate of 100% and 83% respectively. Including the predicate-supplement distinction as a second repeated measures factor (aside from Perspective perspective) in an analysis of variance results in a highly significant interaction effect, $F(1,9) = 15.55$, $p < 0.001$, reflecting the higher predicate rate by observers and the higher contextual supplement rate by actors. Thus although this simplified overall analysis abstracts from many interesting differences between types of predicates, it provides a convincing demonstration of the core idea that actors tend to ascribe fewer predicates to themselves than observers do. However, actors utilize more context references than observers.

Discussion

The results of this study furnish support for the contention that people employ different language devices depending on whether they are reporting on their own action or some other person's. We find that observers utilize more abstract predicates in the description of others behaviours than actors do. The additional feature is the fact that this pattern is reversed for the occurrence rates of context supplements. That is, observers utilize less context supplements than actors do in their descriptions of

people. The critical feature of this study is that its focus was an investigation of the conventions employed in the description of events from actors' and observers' perspectives in general rather than causal reasoning.

Considering this issue within the causal reasoning perspective gives rise to some interesting considerations. If we ignore, for the time being, whether the phenomenon is a stable one (Watson, 1982) and whether it should be regarded as a general perceptual or motivational product or a culturally specific one (e.g. Miller, 1984) there remains one inevitable point. The manifestation or absence of divergences in actors' and observers' attributions can only take place in language. It would otherwise be impossible to observe or examine it in the first place. Consequently, its manifestation and examination must always proceed via linguistic devices, may these be questionnaires or for that matter open ended answers. The central features that allow to identify the presence or absence of such divergences in attributional research rely on specific technical concepts such as 'external-internal' or 'source of causal origin' which are then operationalized predominantly in the form of closed-ended questions. 'Technical' judgments of 'externality vs. internality' or of 'causal origin' are in fact social psychological judgments that are made either 'intuitively', or assessed in the form of scales by anchoring scale ends with the corresponding terms. However, these 'technical terms' have to be based on an intuitive understanding of specific language conventions about the differential use of linguistic categories in the interpersonal domain. In fact, the present linguistic category model allows us to discover the origins of such classificatory 'intuitions' in attribution theory. They are essentially intuitions which are 'language-driven' and consist in labels for implicitly shared conventions about descriptions of self and others' actions. The present application of the linguistic category model permits us to identify clearly the types of terms and sentence forms from which such attributional categories appears to have originated. This approach to attributional phenomena in general and actor observer divergences in particular is not to ascribe primacy to language over cognitive processes or vice versa. In fact, the underlying assumption is an interactive one, whereby language is regarded as mapping cognitive processes and their manifestation (Semin, 1989).

STUDY 2

To examine in more detail the implications of the above considerations for the actor-observer issue we conducted a further study which consisted in the replication of a study by Nisbett *et al.* (1973). The aim was to demonstrate that the pattern of outcomes for actor-observer studies is in fact specific to a differential use of linguistic categories in descriptions of self and others.

Take a question such as the one that a subject in Nisbett *et al.*'s (1973) study has to answer: 'Why do you like your girlfriend?' Both dispositionality and causal origin in terms of category usage and sentence structure are in principle *equiprobable* for both actors' and observers' perspectives. Structurally, sentences such as 'I talk to her' and 'She talks to me' (DAV), 'I help her a lot' and 'She helps me a lot' (IAV), or 'I love her' and 'She loves me' (SV), or even, 'Because I am honest' or 'Because she is honest' (ADJ) are all plausible sentences in answering this question. That is, linguistically there is no a priori reason to assume that there should be a preponderance of one type of sentence structure over another in which the position of the actor or observer

occupy the surface subject or object of the sentence. However, the expectation from an actor-observer perspective is that there should be a preponderance of specific types of predicates in specific grammatical constellations. For instance, when actors asked to describe why they like their 'girl/ boyfriend' then one would expect a preponderance of adjectival descriptions of the form 'Because she is honest, attractive, etc.', but not 'Because I am honest, attractive, etc.' In the case of observers' descriptions, one would expect a focus of dispositional descriptions to the observed actor, e.g., 'He is friendly, honest, etc.'. This would suggest that in a task such as the one by Nisbett *et al.* (1973) actors should use of ADJ more frequently in describing others than themselves. In contrast, observers should use ADJ more frequently in their descriptions of the focal person in question. The general argument in this literature suggests this as the main prediction.

If one takes the second task employed by Nisbett *et al.* (1973, Study 2) namely why participants choose their major (the subject they choose to study at University) then it is difficult to make the same set of predictions in view of the context of such a task, in large part because the situation is not an interpersonal one. This is particularly so, because one would expect all categories to be applicable to both one's own and one's friend's choice of major (e.g., I choose psychology -IAV actor self reference; Maths teaches me discipline -IAV actor major reference, etc.). Since major is not an interpersonal event and refers to an object which, unlike a friend, is not a source of causal origin one would not expect the actor-observer differences to emerge in differential language use. One should also note that in this particular task Nisbett *et al.* (1973) do not get any clear tendencies in their own results. To have a task (liking of friend) which displays the expected divergence and another which does not (choice of major) provides a platform for investigating the sensitiveness of the linguistic category model to such differences.

Our first study allowed us to examine open ended written material to be analyzed systematically as a function of the sentence structure of the participants answers and their relative use of the linguistic categories as a function of their perspective. The further details of this model as outlined above allows us to advance a solution to a problem in this field. As Kelley and Michela suggest 'the dispositional category has remained loosely specified, encompassing ability, traits, and attitudes' (Kelley and Michela, 1980, p. 477). This is an issue that has been problematic not only to the actor observer research (cf. Kruglanski, 1975; Monson and Snyder, 1977; Ross, 1977; Semin, 1980). The framework developed by Semin and Fiedler (1988) provides a precise and detailed coding system for both locating causal origin and degree of dispositionality.

Method

This study consisted of a replication of Study 2 reported by Nisbett, Caputo, Legrant, and Marecek (1973). Twenty-four Sussex University undergraduates (12 males and 12 females) participated in this study on an unpaid voluntary basis. They were asked to write four short paragraphs about: (a) why they liked their girlfriend/ boyfriend they had dated most frequently over the last year (self reference); (b) why they had chosen their major (self-reference); (c) why their best friend liked the girl/ boy he /she had dated regularly over the past year (other-reference); and (d) why he/she had chosen his/ her major (other-reference). The order of self- and other-reference was randomly

varied across subjects. Additionally, subjects were asked to write short sentences to facilitate the analysis of their responses. The study was a 2 (Perspective: Actor vs. Observer) by 2 (Choice: Friend vs. Major) within subjects design.

The Coding System

The content analysis of the free description was based on joint coding of the causal origin and the linguistic level (DAV, IAV, SV, or ADJ — degree of dispositionality) of the sentences. In general, causal origin as expressed in a sentence is defined as the logical sentence subject (which may be the grammatical object in sentences in the passive voice); the logical subject is usually the agent who instigates social behaviour. There is however one notable exception to this general coding rule. As we have seen, unlike all other sentences SV-sentences are causally ascribed to the sentence object. That is, a SV-sentence (e.g. 'S fears O') is causally interpreted as if the object person (O) has caused the subject (S) to show that behaviour (by implicitly assuming something like 'O frightened S'). Because of this empirical fact, the object of SV-sentences was regarded as the causal origin.

With regard to sentence structures expected from attribution theory, the two perspectives (actor vs. observer) should elicit different sentence structures. Given the above definition of causal origin, the sentence structures in the upper part of Table 4 below are consistent with predictions from attribution theory. The lower part of Table 4 lists the sentence structures inconsistent with the theoretical predictions (i.e., attributions to external factors by actors and to dispositional factors by observers).

Table 4. Sentences structures consistent and inconsistent with the actor-observer principle in attribution theory

(S = Logical Sentence Subject; O = Logical Sentence Object)

Sentence Structures Consistent With the Theory						
Actor's Perspective				Observer's Perspective		
(1)	S(Target)	DAV	O(Self)	S(Actor)	DAV	O(Target)
(2)	S(Target)	IAV	O(Self)	S(Actor)	IAV	O(Target)
(3)	S(Self)	SV	O(Target)	S(Target)	SV	O(Actor)
(4)	S(Target)	aux.verb	ADJ	S(Actor)	aux.verb	ADJ
Sentence Structures Consistent With the Theory						
(1)	S(Self)	DAV	O(Target)	S(Target)	DAV	O(Actor)
(2)	S(Self)	IAV	O(Target)	S(Target)	IAV	O(Actor)
(3)	S(Target)	SV	O(Self)	S(Actor)	SV	O(Target)
(4)	S(Self)	aux.verb	ADJ	S(Target)	aux.verb	ADJ

Note: Structures in the Table refer to sentences in the active form. Sentences in the passive form have to be inverted before the analysis. The term 'target' refers to the appropriate object of the choice problem which is usually either the best friend or the major, depending on the condition. ADJ are usually used in conjunction with an auxiliary verb. Note that the structure of sed inSV sentences is systematically reversed because SV-sentences imply object causation.

With respect to the linguistic categories used to describe one's own (actor's perspective) or others' behaviour (observer's perspective), the increasing dispositionality from DAV to ADJ had to be taken into account. In the absence of precise qualitative assumptions, this was accomplished by a simple monotonic weighting scheme using 1, 2, 3, and 4, to weight DAV, IAV, SV, and ADJ respectively. Applying these weights to the coding for the causal origin described Table 4, attribution-theory-consistent sentences from the actor's perspective were coded as 1, 2, 3, and 4, and sentences from the actor's perspective were coded the same way except with a negative sign. Sentences consistent with attribution theory from the observer's perspective were coded as -1, -2, -3, and -4 (i.e., the weight multiplied by a negative sign). Again, the sign was reversed if the sentences were not consistent with the observer's perspective. The resulting score can be considered an ordinal scale measure reflecting the degree of attributed dispositionality in the direction of the actor. Theoretically, numerically higher values on this score should be indicative of the actor's perspective (external attribution) while numerically low (negative) values should be obtained from the observer's perspective. Thus the score is deliberately conceived to distinguish between actors and observers.

In a final step, a composite score was computed that aggregates these scores across all the sentences produced by each individual subject for each task (best friend/major). Thus the composite score was defined as the sum of the sentence-wise scores (ranging from -4 to +4) divided by the total number of sentences produced by a subject in each condition. The higher the value on this composite score, the more pronounced the tendency of the text paragraph as a whole to express actor causation. Within each participant, separate composite scores were computed for both perspectives (actor vs. observer) and type of choice (best friend vs major) and subjected to a 2×2 repeated ANOVA.

Results

The Analysis

Two coders who were blind to the conditions analyzed the responses of the subjects independently. The inter-coder reliability was 89%. Six per cent of the responses were not classifiable into either category. In the case of sentences such as 'We enjoy each other's company' (Actor Condition) two entries were made, in this instance with a SV, once as -3 and once as +3. Similarly, 'we help each other' received an IAV coding, once as -2 and once as +2.

Overall Analysis

In order to obtain the overall tendencies the composite source indicating causal score and degree of dispositionality was analyzed in a 2 by 2 within subjects ANOVA with Perspective (Actor vs. Observer) and Choice (Friend vs. Major) as the two factors. The expected outcome from an attribution theory perspective is a main effect for Perspective. As can be seen from Table 5 this was significant, $F(1,17) = 35.00$; $p < 0.0001^2$. The main effect for Choice was also significant, $F(1,17) = 27.17$; $p < 0.0001$.

2 The df for F are 1,17 instead of 1,23 due to the pairwise deletion of missing data. This came about because in some cases uncodable data meant that for one of the four conditions of some subjects there was no entry.

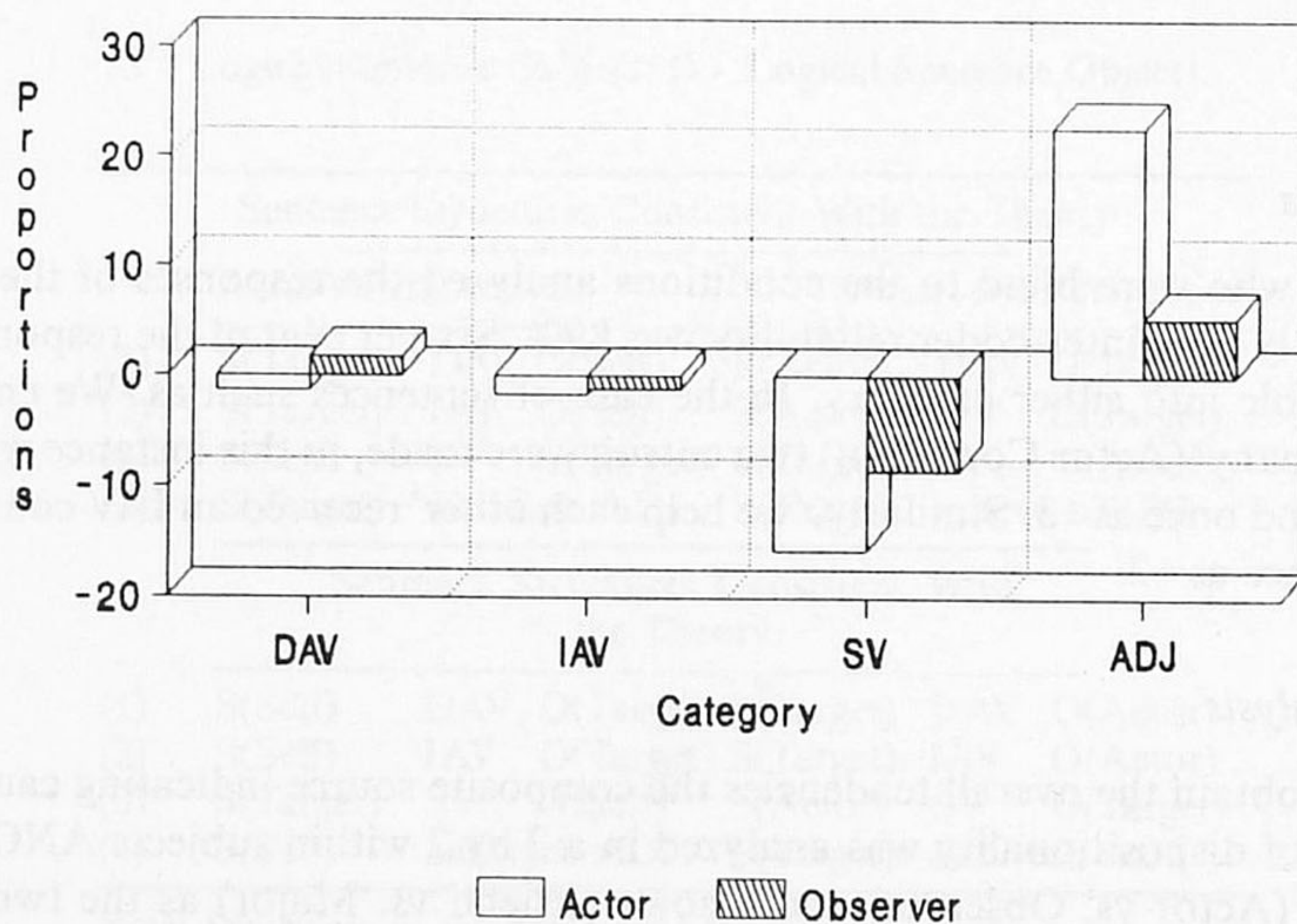
Table 5a. Average proportion of category usage-composite score

	Perspective	Actor	Observer
Choice	Friend	3.09	0.63
	Major	1.00	-1.57

Table 5b. Modified Table 2 from Nisbett *et al.* (1973)

	Perspective	Actor	Observer
Choice	Friend	2.57	0.13
	Major	-0.31	-1.37

The interaction term was non-significant $F < 1.00$. These results indicate the following: In the case of the Actor Condition we find the attribution theoretical result. The causal source is ascribed to 'external circumstances', i.e. friend ($X = +3.09$) or major ($X = +1.00$). Furthermore, in the Actor/Friend condition the mean indicates a strong attribution of dispositionality. In the case of the Actor/Major condition attributed dispositionality is quite low. In the case of the Observer condition we have the expected causal source for the Observer/Major cell ($X = 1.57$), but not in the case of the Observer/Friend cell ($X = 0.63$). In fact, a closer inspection of the results obtained in experiment 2 by Nisbett *et al.* (1973) shows the close affinity between our



Positive values indicate expected direction from the actor-observer prediction/reversal for neg. values

Figure 1a. Linguistic category use as a function of perspective

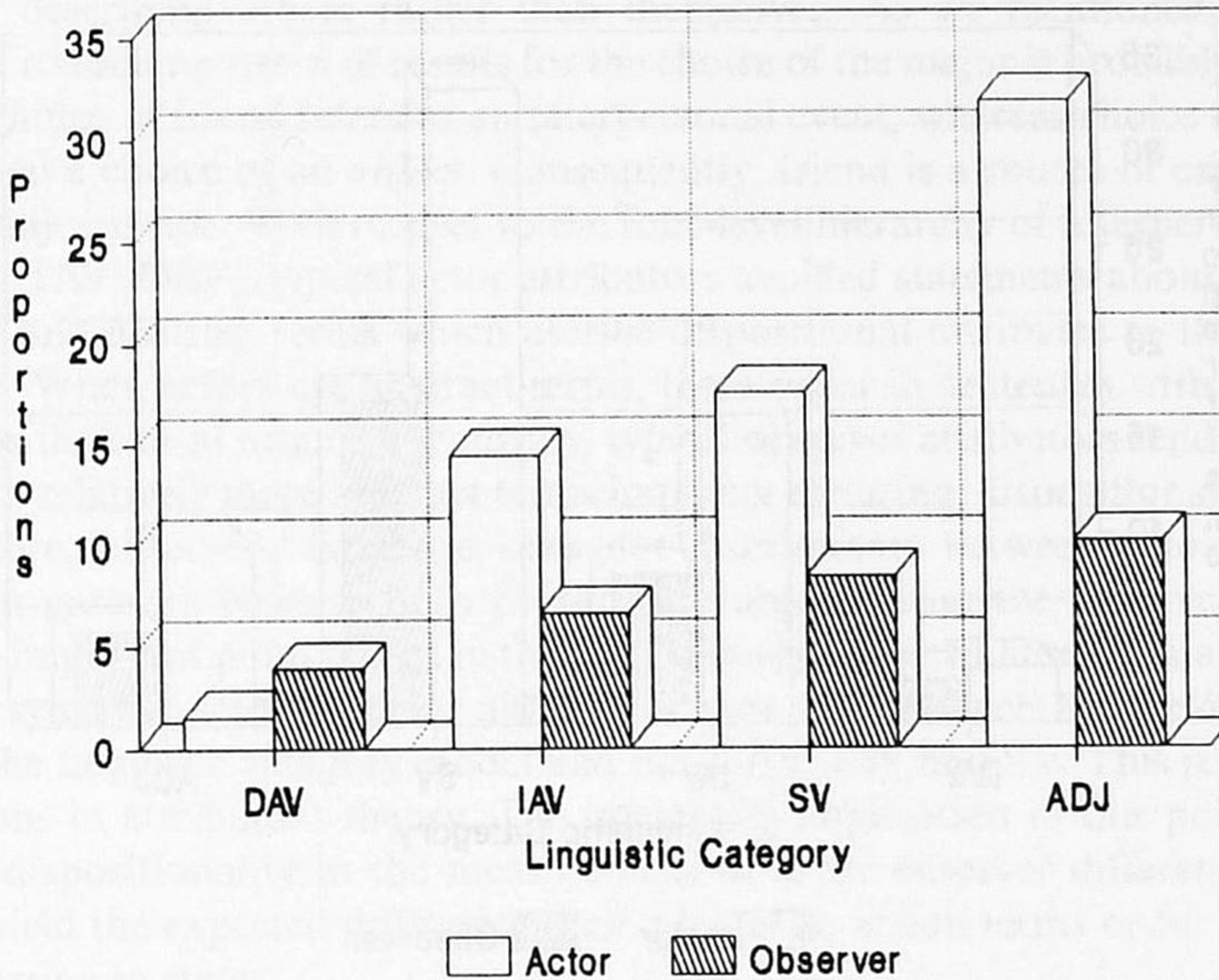


Figure 1b. Attribution theory predicted outcomes

findings and theirs. If one examines their Table 2, p. 159, and subtracts what they term 'dispositional' reasons from 'entity' reasons, then the same relationships are to be seen, as noted in Table 5b. The pattern of results for the choice factor (Friend vs. Major) suggests that the differences for friend are in the expected direction, whereas those for major show a weak trend.

The above results do not display the actual distribution of linguistic category usage as a function of perspective and choice. To this end we conducted a further analysis in which we calculated the proportion of linguistic categories used by each subject separately for their answers for their friend and major under the actor and observer conditions. In this analysis we signed the attribution theory expected predicate use positively and those not expected from an attribution theory perspective negatively. The arcsin transformed difference scores (expected proportions minus unexpected proportions) was subject to a MANOVA with three within subjects factors, namely Perspective (Actor vs. Observer), Choice (Friend vs. Major) and Linguistic Category (DAV vs. IAV vs. SV vs. ADJ). There was a significant main effect for Linguistic Category, $F(1,23) = 18.74$; $p < 0.001$, indicating that the DAV and IAV difference scores were near to zero in contrast to high SV and ADJ difference scores. More importantly, in the context of the specific hypothesis, there was a significant Perspective by Linguistic Category interaction, $F(3,69) = 3.42$; $p < 0.03$ and a weak tendency for the highest order interaction between Perspective, Choice and Linguistic Category, $F(3,69) = 2.64$. The significant second order interaction represented in Figure 1 below suggests the following. First, There is the expected strong use of ADJ, which is significantly more pronounced in the actor perspective (e.g. 'My best friend is an honest person' type sentences, are more frequent than 'I am an honest person'). For the observer perspective this is not so pronounced (e.g. 'My best friend likes X because my best friend is honest' types of sentences over 'My best friend likes person X because

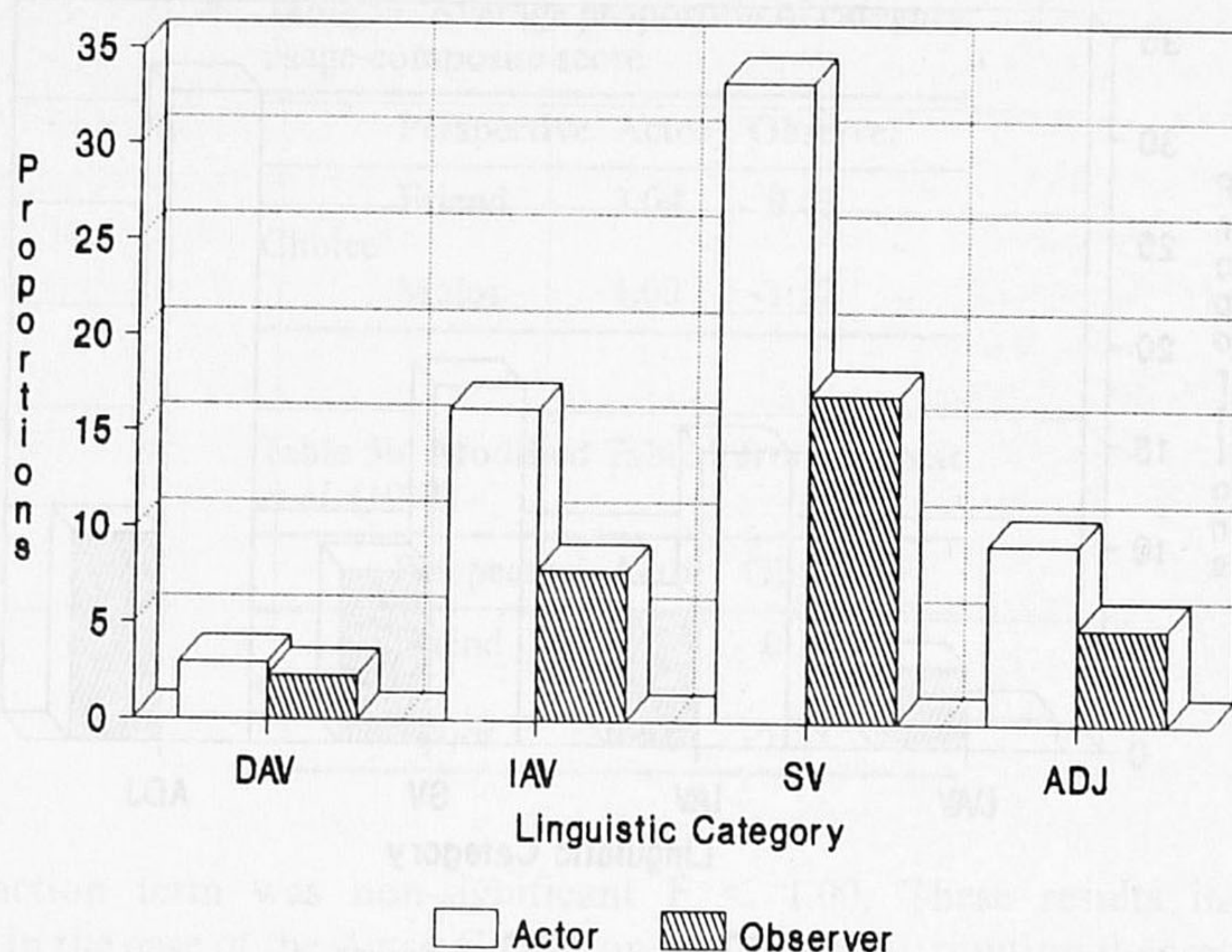


Figure 1c. Outcomes not predicted by attribution theory

X is honest' types of sentences). It is interesting to note how these differences emerge, as can be seen from Figures 1b and 1c. In Figure 1b, one can see the attribution theory expected outcomes, and these display a perfect linear increase from DAV to ADJ use for both actor and observers, except that this trend is significantly more pronounced for actors than observers; $F(3,69) = 7.64, p < 0.001$. A similar trend is observed for the unexpected outcomes in Figure 1c, except for ADJ, however this interaction for unexpected outcomes is not significant; $F(3,69) = 1.60, n.s.$. These patterns confirm the distinctive role played by ADJ in mediating the expected effect, whereas DAV and IAV differences appear to be nearly equiprobable (see Figure 1a) and there is a tendency to utilize SV in the opposite direction. The pronounced differences in perspectival descriptions appear to be mainly accounted for by the differential use of ADJ as predicted.

DISCUSSION AND CONCLUSIONS

What these results show is that actors and observers utilize different linguistic devices. According to the theory, actors tend to attribute their own behaviour to external factors while observers emphasize dispositional causes within the actor. This prediction was confirmed to the degree that different language levels are utilized by actors and observers when they give free descriptions of the reasons for choosing a friend and to a lesser extent a major. This difference is manifested in the main by the differential use of ADJ, rather than the remaining categories. Overall, this result confirms that when there are actor observer differences then this is due essentially to the differential use of adjectives in descriptions of self and others. We find that observers use adjectives in their description of focal others and that actors use

adjectives describing others rather than themselves. As we mentioned earlier the absence of a similar pattern of results for the choice of the major is probably due to the fact that choice of friend refers to an interpersonal event, whereas choice of major is, as suggested a choice of an *object*. Consequently, friend is a source of causal origin, whereas major is not. With respect to the four-level hierarchy of interpersonal terms (ADJ, SV, IAV, DAV), typical actor attributors avoided statements about themselves in general and abstract terms which ascribe dispositional attributes to themselves in particular. When actors use abstract terms, these occur in sentences with interaction partners as the causal origin. In contrast, typical observer attributors tend to describe actors with relatively more abstract terms implying enduring, dispositional properties. Furthermore, observers' language does not discriminate between actors and their interaction partners because both persons are objects from the observer's point of view. The important point is that in the second study reported here the main linguistic device carrying the actor observer differences were ADJs, which are the dispositional terms in the linguistic category model and not DAV, IAV and SV. This is in line with assumptions in attribution theory. The interesting implication of this point is that a focus on dispositionality in the measurement of actor observer differences is more likely to yield the expected difference than a focus on action terms or for that matter terms referring to states.

In both the first and the second studies we find that when actors utilize abstract terms, this occurs in sentences with interaction partners as the logical subject of the sentence. In contrast, observers typically describe actors in relatively more abstract terms. The first study demonstrates that this propensity also holds for other terms in sentences, namely for specific references to other persons, time, space and modality. This implies that the language based factors involved in the divergence under consideration may be broader than originally assumed. Taken together these studies indicate that what is generally regarded as the result of causal thinking or cognitive processes within individuals may in fact be a more general propensity applying in contexts where causal thinking is not experimentally induced. This obviously does preclude the possibility that subjects still engage in causal thinking in such tasks. Whatever the underlying cognitive process might be, it is worth noting that the linguistic category model advanced for the interpersonal domain provides a precise coding and specification of both dispositionality and causal origin. However, in doing so, it allows us to explicate an issue which has hitherto remained an implicit one. That is, the application of this model points to the language based origins of these classificatory 'intuitions' in attribution theory. They are essentially intuitions which are 'language-driven' and consist in labels for implicitly shared conventions about descriptions of self and others' actions. The present application of the linguistic category model permits us to identify clearly the types of terms and sentence forms from which such attributional categories appear to have originated. In that sense, the application of the linguistic category model provides an advance on earlier categories in the attributional literature. Furthermore, it also means that the present approach can be applied to a number of issues in attribution theory aside from the actor-observer discrepancy issue reported here.

The application of the linguistic category model opens certain possibilities for the examination of an age-old problem in psychology, namely the linguistic relativity issue. Although the present studies do not aim to provide a solution to this question the model does permit such an examination. If it is the case that language influences

causal attribution, then one possible way of examining this would be to examine the attributions of bilinguals, for instance, Indians. This possibility is prompted by a study reported by Miller (1984). She conducted a comparative study on the types of attributions Indian and American adults and children make for both pro-social and deviant behaviours. Her study demonstrates that Americans at older ages utilize more dispositional explanations and less contextual ones compared to Hindus. Her developmental study shows that whereas American subjects increasingly use dispositional explanations the reverse is the case for Hindus. These results essentially show the differential impact of cultural conceptions of the person on the attributional process and by implication the dependence of attributions on different language conventions (see also Shweder and Bourne, 1984; Shweder and Miller, 1985). This would mean that the use of language differs for Americans and Indians. Consequently, one could hypothesize that sophisticated bilinguals should provide one set of results in Indian and another set of results in English, if the differences obtained by Miller are reducible to language conventions.

There are certain advantages to utilizing an approach which emphasizes the language cognition interface for the analysis of social cognitive processes. One set of advantages can be found in the precision that is introduced into specific propositions in attribution theory such as the question of causal origin, or the question of dispositionality. A language based analysis permits a precise specification of these questions as they are to be found in verbal communication in daily life. Furthermore, it permits us to explicate the intuitive notions that governed the research so far on the subject. This perspective also allows us to analyze open-ended material in a quantitative manner without having to resort to specific types of scales, etc. and therefore can enhance the type of empirical paradigm that is employed in experimentation, making dependent variables closer to real life settings, i.e. examining discourse.

One of the major implications of this type of analysis focusing on the relationship between language and social cognition (Fiedler and Semin, 1988; Fiedler, Semin, Bolten, 1989 and Semin and Fiedler, 1988) is that it introduces a shift in the level of analysis. The typical attribution theoretical work in particular and social cognition in general resort to a cognitive constructionism which relies on individual processes in the explanation of social-cognitive processes (see Baron and Boudreau, 1988) and thus engages in an individualistic reductionism (Sampson, 1983, 1985; Semin, 1986, 1990). The major problem that such approaches to social cognition have to contend with is the issue of how one deals with the fact that there is an intersubjective reality and medium which enables social interaction and communication. Language has a fundamental role to play both as the medium of the description and characterization of social behaviour and of persons as well as a medium of communication between people.

REFERENCES

- Abelson, R. P. and Kanouse, D. E. (1966). 'Subjective acceptance of verbal generalizations'. In S. Feldman (Ed.), *Cognitive consistency: Motivational antecedents and behavioural consequents* (pp. 171-197). New York: Academic Press.

- Au, T. K. (1986). 'A verb is worth a thousand words: The causes and consequences of interpersonal events implicit in language'. *Journal of Memory and Language*, **25**: 104-122.
- Baron, R. M. and Boudreau, L. A. (1988). 'An ecological perspective on integrating personality and social psychology'. *Journal of Personality and Social Psychology*, in press.
- Brown, R. and Fish, D. (1983). 'The psychological causality implicit in language.' *Cognition*, **14**: 233-274.
- Carmazza, A., Grober, R., Garvey, C. and Yates, J. (1977). 'Comprehension of anaphoric nouns.' *Journal of Verbal Learning and Verbal Behaviour*, **16**: 601-609.
- Cunningham, J. D. and Kelley, H. H. (1975). 'Causal attributions for interpersonal events of varying magnitude'. *Journal of Personality*, **43**: 74-93.
- Cunningham, J. D., Starr, P. A. and Kanouse, D. E. (1979). 'Self as actor, active observer, and passive observer. Implications for causal attributions.' *Journal of Personality and Social Psychology*, **37**: 1146-1152.
- DiVitto, B. and McArthur, L. Z. (1978). 'Developmental differences in the use of distinctiveness, consensus, and consistency information for making causal attributions'. *Developmental Psychology*, **14**: 478-482.
- Fiedler, K. (1978). 'Kausale und generalisierende Schlüsse aufgrund einfacher Sätze' [causal and generalizing inferences from simple sentences]. *Zeitschrift für Sozialpsychologie*, **9**: 37-49.
- Fiedler, K. and Semin, G. R. (1988). 'On the causal information conveyed by different interpersonal verbs: The role of implicit sentence context'. *Social Cognition*, **6**: 21-39.
- Fiedler, K., Semin, G. R. and Bolten, S. (1989). 'Language Use and reification of social information: Top-down and bottom-up processing in person cognition'. *European Journal of Social Psychology* (in press).
- Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: Wiley.
- Jones, E. E. and Nisbett, R. E. (1972). 'The actor and observer: Divergent perceptions of the causes of behaviour'. In E. E. Jones *et al.* (Eds.), *Attribution: Perceiving the causes of behaviour* (pp. 121-136). Morristown, NJ: General Learning Press.
- Kelley, H. H. and Michela, J. L. (1980). 'Attribution theory and research'. *Annual Review of Psychology*, **31**: 457-501.
- Kruglanski, A. W. (1975). 'The endogenous-exogenous partition in attribution theory'. *Psychological Review*, **82**: 387-406.
- McArthur, L. (1972). 'The how and what of why: Some determinants and consequences of causal attribution'. *Journal of Personality and Social Psychology*, **22**: 171-193.
- McGuire, W. J. and McGuire, C. V. (1986). 'Differences in conceptualizing self versus conceptualizing other people as manifested in contrasting verb types used in natural speech'. *Journal of Personality and Social Psychology*, **51**: 1135-1143.
- McGuire, W. J., McGuire, C. V. and Cheever, J. (1986). 'The self in society: Effects of social contexts on the sense of self'. *British Journal of Social Psychology*, **25**: 259-270.
- Miller, J. G. (1984). 'Culture and the development of everyday social explanation'. *Journal of Personality and Social Psychology*, **46**: 961-978.
- Monson, T. C. and Snyder, M. (1977). 'Actors, observers, and the attribution process: Toward a reconceptualization'. *Journal of Experimental Social Psychology*, **13**: 89-111.
- Nisbett, R. E., Caputo, C., Legrant, P., and Maracek, J. (1973). 'Behaviour as seen by the actor and as seen by the observer'. *Journal of Personality and Social Psychology*, **27**: 154-165.
- Orvis, B. R., Cunningham, J. D., and Kelley, H. H. (1975). 'A closer examination of causal inference: The roles of consensus, distinctiveness, and consistency information'. *Journal of Personality and Social Psychology*, **32**: 605-616.
- Ross, L. (1977). 'The intuitive psychologist and his shortcomings: Distortions in the attribution process'. In L. Berkowitz (Ed.), *Advances in experimental social psychology* Vol. 10 (pp. 0). New York: Academic Press.
- Ruble, T. L. (1973). 'Effects of actor and observer roles on attributions of causality in situations of success and failure'. *Journal of Social Psychology*, **90**: 41-44.
- Sampson, E. E. (1983). 'Deconstructing psychology's subject'. *Journal of Mind and Behaviour*, **4**: 136-164.
- Sampson, E. E. (1985). 'The decentration of identity: Toward a revised concept of personal and social order'. *American Psychologist*, **40**: 1203-1211.

- Semin, G. R. (1980). 'A gloss on attribution theory'. *British Journal of Social and Clinical Psychology*, **19**: 291-300.
- Semin, G. R. (1986). 'The individual — society interface'. *British Journal of Social Psychology*, **25**: 177-180.
- Semin, G. R. (1989). 'The contribution of linguistic factors to attribute inferences and semantic similarity judgments'. *European Journal of Social Psychology*, **19**: 85-100.
- Semin, G. R. (1990). 'Everyday assumptions, language, and personality'. In G. R. Semin and K. J. Gergen (Eds), *Everyday understanding: Social and scientific implications*. Beverly Hills: Calif. and London (in press).
- Semin, G. R. and Fiedler, K. (1988). 'The cognitive functions of linguistic categories in describing persons: Social cognition and language'. *Journal of Personality and Social Psychology*, **54**: 558-568.
- Semin, G. R. and Greenslade, L. (1985). 'Differential contributions of linguistic factors to memory based ratings: Systematizing the systematic distortion hypothesis'. *Journal of Personality and Social Psychology*, **49**: 1713-1723.
- Shweder, R. A. and Bourne, E. J. (1984). 'Does the concept of person vary cross-culturally?' In R. A. Shweder and R. A. LeVine (Eds), *Culture Theory* (pp. 158-199). Cambridge: Cambridge University Press.
- Shweder, R. A. and Miller, J. G. (1985). 'The social construction of the person: How is it possible?' In Gergen, K. J. & Davis, K. E. (Eds), *The social construction of the person* (pp. 41-72). New York: Springer.
- Watson, D. (1982). 'The actor and the observer: how are their perceptions of causality divergent?' *Psychological Bulletin*, **92**: 682-700.

RÉSUMÉ

Nous rapportons deux études appliquant un modèle linguistique au domaine acteur-observateur dans la théorie de l'attribution. Le modèle fait une distinction entre quatre classes de termes interpersonels (verbes décrivant l'action, verbes interprétant l'action, verbes indiquant un état, et adjectifs) qui jouent un rôle médiateur dans les inférences cognitives. L'adoption de ce modèle linguistique suggère que les différences acteur-observateur se laissent comprendre comme des conventions linguistiques différentielles employées par acteurs et observateurs. Cette hypothèse est supportée par la première étude où il est demandé au sujet de donner des descriptions libres d'un nombre de situations sociales. La seconde étude examine des implications plus spécifiques de cette situation générale à travers la réplication d'une expérience de Nisbett *et al.* (1973). Il apparaît que les mêmes conventions linguistiques sont employées par les acteurs et les observateurs dans cette situation plus spécifique. Nous discutons les implications de ces données en nous référant spécifiquement à l'influence de la culture sur les processus cognitifs.

ZUSAMMENFASSUNG

Berichtet werden zwei Studien, in denen ein linguistisches Kategorienmodell auf die unterschiedlichen Attributionsstile von Akteuren und Beobachtern angewandt wird. Dieses Modell unterscheidet zwischen vier Klassen von interpersonalen Attributen (deskriptive Handlungsverben, interpretative Handlungsverben, Zustandsverben und Adjektive), die unterschiedliche kognitive Inferenzschlüsse vermitteln. Uebertragen auf Attributionsprozesse besagt dieses linguistische Kategorienmodell, dass die (systematischen) Unterschiede zwischen Akteuren und Beobachtern durch verschiedene Sprachkonventionen verstanden werden koennen, die fuer Akteure und Beobachter gelten. Diese Hypothese wird in der ersten Studie bestaetigt, in der Versuchsteilnehmer nach freien Beschreibungen von verschiedenen sozialen Ereignissen gefragt wurden. Eine zweite Studie befasst sich mit spezifischeren Implikationen dieses allgemeinen Prinzips, indem die Ergebnisse eines Experiments von Nisbett *et al.* (1973) repliziert werden. Es wird gezeigt, dass dieselben auf Sprache beruhenden Konventionen auch in diesem speziellen Fall gelten. Die Schlussfolgerungen aus diesen Befunden werden unter dem besonderen Gesichtspunkt von kulturellen Einflüssen auf kognitive Prozesse diskutiert.